



**Fiscal Year 2003  
Annual Report on School-Based Health Centers**

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## **Fiscal Year 2003 Annual Report on School-Based Health Centers**

### **Executive Summary**

Texas Education Code (TEC), Chapter 38, § 38.064, requires the Commissioner of Health to issue an annual report to the Legislature about the efficacy of services delivered by School-Based Health Centers (SBHCs) in Texas. Drawing on data collected by the Texas Department of Health (TDH) and the Texas Education Agency (TEA), a case study of the Hays WELL Clinic, and stakeholder interviews, this report highlights service utilization trends and academic outcomes for the nine SBHCs that received TDH funding during Fiscal Year (FY) 2003.

### **Key Findings**

- Over 40,000 students across 58 campuses had access to a TDH-funded SBHC. Thirty-four percent of the clients served were elementary school students, 52% were middle school students, and 14% were high school students. Among the students who attended campuses with a SBHC, 63% were Hispanic, 26% were Caucasian, 10% were African American, 1% were either Asian, Native American or “other.”
- TDH-funded SBHCs continued to provide access to health care to students who were economically disadvantaged, undocumented, lived in rural areas, or were parents themselves. The case study of the Hays WELL Clinic indicated that SBHC enrollment rates have increased between 2002 and 2003.
- In addition to preventive care, SBHCs continue to expand services and health education through mobile units and emphasis on oral health. In addition to the students who attend SBHC-affiliated schools, the students’ family members and members of the community also utilized SBHC services.
- Most key stakeholders noted that many of the challenges that were faced during the initial start-up year were overcome through experience, school district support, and community partnerships.

- There was a significant increase in the total number of immunizations administered. The number of immunizations administered by TDH-funded SBHCs rose from 4,477 to 10,509, representing a 134% increase between 2002 and 2003.
- TDH-funded SBHCs saw a 51.8% increase in the number of Medicaid visits during FY 2003. A total of 6,200 Medicaid visits were cited in 2002 compared to 9,414 in 2003.
- Given the introduction of the new Texas Assessment of Knowledge and Skills (TAKS) standardized academic tests in the 2003 school year, it was not advisable to make comparisons with test scores from the previous Texas Assessment of Academic Skills (TAAS) tests. Future evaluations will examine TAKS scores over time.
- No significant differences in attendance and discipline referrals were found between SBHC-served campuses and comparison campuses that were selected based on matching socio-demographic and socio-economic characteristics. However, five out of ten comparisons indicated better attendance and discipline records than comparison campuses.
- Key stakeholders in most of the SBHCs funded during FY 2003 indicated plans to secure future funds through other sources.

### **Future Activities**

- In FY 2004, TDH will continue to document the progress of TDH-funded SBHCs, looking both at their successes and the challenges they face, utilizing the tools referenced in this report for measuring the health and educational impact of SBHCs on Texas students.

## **Fiscal Year 2003 Annual Report on School-Based Health Centers**

### **Background**

The primary objective of the Texas Department of Health (TDH) Adolescent and School Health Program is to provide leadership and support to communities in their efforts to meet the health services and health education needs of their children in a school setting. Through a competitive grant process launched in 1993, the TDH Adolescent and School Health Program began providing funds to assist local communities in establishing School-Based Health Centers (SBHCs).

Using a comprehensive, multi-disciplinary approach including mental health and interrelation of family, school and community, these facilities located in schools or on school grounds are dedicated to providing affordable and accessible primary and preventive health care to a school-age population. The categories of services SBHCs may provide include family and home support, primary health care, immunizations, mental health services, dental health care, health education, and preventive health strategies.

Since 1999, as authorized by the 76<sup>th</sup> Legislature, Regular Session, TDH has provided SBHC start-up funding in accordance with Texas Education Code (TEC), Chapter 38, §§ 38.051 through 38.064. TDH provides a maximum of three years of start-up funding not to exceed \$125,000 per year for each selected SBHC project. During Fiscal Year (FY) 2003, TDH funded nine SBHC projects.

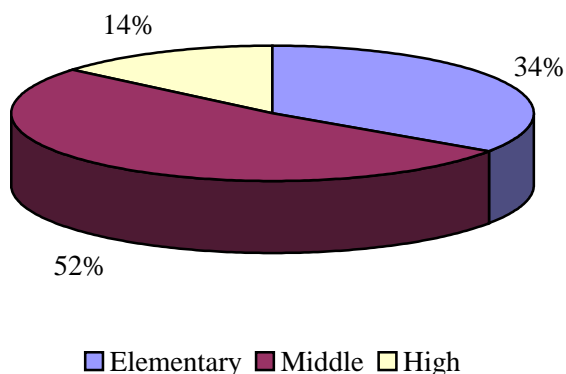
### **Evaluation Methods**

Texas Education Code (TEC), Chapter 38, § 38.064, requires the Commissioner of Health to issue an annual report to the Legislature about the efficacy of services delivered by SBHCs in Texas. This report focuses on SBHCs that received TDH funding during FY 2003. Particular emphasis is given to service utilization, and where appropriate, 2002 and 2003 data will be compared in an effort to examine service utilization trends. A variety of data sources were used including case study data, quarterly program reports, and stakeholder interviews with SBHC administrators and staff. In addition, differences in attendance and disciplinary placements were examined using Texas Education Agency (TEA) Public Education Information Management System (PEIMS) data.

## **Demographic Overview**

TDH funded nine SBHCs during FY 2003. The participating schools and independent school districts (ISDs) included: Clint ISD, Dallas ISD, Galveston ISD, Hays CISD, George I. Sanchez Charter High School (Houston), Sundown ISD, Texarkana ISD, and Texas City ISD. According to data reported to the TDH Adolescent and School Health Program, of the students who attended campuses with a SBHC, 63% were Hispanic, 26% were Caucasian, 10% were African American, 1% were either Asian, Native American or “other.” Over 40,000 students across 58 campuses had access to a TDH-funded SBHC. As shown in Figure 1, of the total number of students who visited a SBHC, 34% (n = 3, 523) of the clients were elementary school students, 52% (n = 5, 292) were middle school students, and 14% (n = 1,420) were high school students.

Figure 1.  
TDH SBHC Clients by School Type



Prior to receiving medical attention at a TDH-funded SBHC, minors must have a signed, parental consent form on file. SBHC enrollment rates were determined by comparing the number of students with written parental consent to the number of students who were eligible to enroll in the program. By the end of FY 2003, SBHC enrollment rates ranged from 8.07% (Clint ISD) to 95.3% (Galveston ISD). There appears to be no association between duration of SBHC funding and enrollment rates. Overall, a total of 9,124 students and 3,042 siblings, family members, and other community members were enrolled in TDH-funded SBHCs.

## **The Hays WELL Clinic: Follow-Up Case Study**

**Organizational Structure & Provision of Services:** The Hays WELL (Wellness Encouraged through Lifelong Learning) Clinic began operation in November 2001, and continues to serve students from 14 campuses in the Hays Consolidated Independent School District (Hays CISD). The clinic was open Monday through Friday for a total of 37.5 hours each week. After hours and weekend care was provided off site through an agreement with Children's Hospital of Austin and Central Texas Medical Center. A medical director, a nurse practitioner, a registered nurse, a licensed vocational nurse, and a receptionist staffed the clinic.

Details from the initial site visit made in September 2002 were provided in the FY 2002 SBHC annual report. The WELL Clinic experienced personnel changes in FY 2003, which resulted in the hiring of a new licensed vocational nurse, registered nurse, and a receptionist. Despite these changes, the organizational structure and provision of services remained virtually the same. The WELL Clinic continued to receive support from the school district as well as in-kind services from Children's Hospital of Austin and Central Texas Medical Center. The latter organization conducted lab work when needed. Well child and sports physicals, immunizations, treatment of minor injury and illness, basic lab work, and referrals for major or chronic illnesses were routine procedures. The clinic maintained a partnership with H.E.B. Food Stores and continued to offer pharmacy vouchers for students who could not afford medication. In addition, the WELL Clinic expanded health education services by providing information on oral health. Toothbrushes and information on dental hygiene were distributed to patients.

Staff of the WELL Clinic has explored the feasibility of providing on-site mental health services for the target population. At the time of the follow-up case study, office space was available for a resident psychiatrist or psychologist. However, a lack of funding currently prohibits hiring additional staff to provide those services.

**Challenges to Program Implementation:** Some of the challenges identified during the first site visit in 2002 have persisted. The Hays WELL Clinic continues to face language barriers, though this problem has been somewhat ameliorated by the addition of bilingual staff. A high no-show rate (i.e. where clients did not keep appointments) was also problematic. WELL Clinic staff suggested that the addition of a half-time clerk dedicated to making patient appointment reminder calls could have a positive impact on the no-show rate.

Space limitations posed challenges for clinic staff during the first year of the program. At that time, a portable building was used to house the clinic at Tom Green Elementary School, and clinic staff shared a space with the school nurse at Hemphill Elementary School. By the beginning of FY 2003, a new portable building with two exam rooms, a large waiting room, and administrative offices was in use at the Hemphill Elementary location. However, barriers related to the logistics of sharing records between the two clinic locations remain a problem. To this end, two fully staffed sites are needed.

**Enrollment:** Relative to the previous year, the Hays WELL Clinic witnessed an increase in clinic enrollment. By the end of the fourth quarter of FY 2003, 40% of all students eligible to receive services were enrolled, compared to 10.1% the previous year. In addition, the number of students enrolled increased from 283 during the first quarter to 1,756 by the end of FY 2003. Although enrollment figures increased steadily during both years, it is worth noting that the total number of students enrolled in the Hays WELL Clinic almost doubled by the close of FY 2003.

**Number of Primary Health Care Visits:** As defined by the TDH Adolescent and School Health Program, a primary health care provider in a SBHC is a medical doctor, nurse practitioner or physician's assistant who provides preventive and primary health care services. Compared to the previous year, the total number of students seen by primary health care providers between FY 2002 and FY 2003 increased by 25.3% from 755 students to 946 students. It can be argued that by FY 2003, more students, parents and community members were aware of the clinic services, and therefore, the number of primary health care visits increased.

In FY 2003, primary care providers treated approximately 240 students during the first quarter, followed by 330 in the second quarter. The number of visits declined to 195 and 172 for the third and fourth quarters respectively as the fiscal year came to a close.

Although primary care providers saw fewer students in the third and fourth quarters of 2003, the pattern of service utilization was the same across both years and is indicative of student health needs. That is, during the first and second quarters (September through February), more students are usually expected to visit the clinic for services such as immunizations, physicals, and respiratory related illnesses. By the third quarter, clinics would expect to see fewer students for those types of visits. In addition, the fourth quarter numbers would appear lower given that the reporting period covers the summer vacation, a time when students are not in school.

**Common Reasons for Visiting the WELL Clinic:** During the past two years, WELL Clinic clients have been treated for a variety of illnesses. However, the majority of clients have primarily been seen for common ailments and routine, preventive care such as well child physicals. Table 1 lists some of the most common reasons for visiting the Hays WELL Clinic.

Table 1.

Most Common Reasons for Visits & Most Commonly Prescribed Medications in FY 2003

<b>Most Common Reasons for Visits</b> <ul style="list-style-type: none"><li>• Immunizations</li><li>• Sports Physicals</li><li>• Well Child Physicals</li><li>• Acute Otitis Media (ear infection)</li></ul>
<b>Most Commonly Prescribed Medications</b> <ul style="list-style-type: none"><li>• Amoxicillin</li><li>• Corisporin</li><li>• Augmentin</li><li>• Rynatan</li><li>• Selenium Sulfate</li></ul>

There were, however, some clients who experienced serious or life threatening problems that required referrals and additional follow up. The following anecdotal information was provided in the quarterly program reports:

- An 8-year-old child was diagnosed with idiopathic thrombyctic purpura (bleeding into the skin, organs and tissue due to a deficiency of platelets; inability of the blood to clot). The student received a referral to the Children's Health Insurance Program, and the WELL Clinic medical director became the student's Primary Care Physician.
- An 11-year-old boy was referred to a cardiologist for his heart murmur, and then later referred to a geneticist when it was realized that 6 of his 11 siblings also had heart problems. This was made possible through the work of the nurse case manager.

More importantly, the WELL Clinic has become a medical home for siblings of school-aged children and other community members who otherwise would not have any access to health care services.

- A 22-month-old male was seen in the SBHC for a well child exam. This was his first visit to the clinic. Increased FOC (frontal occipital circumference) was noticed, and he was immediately referred to a specialist. Subsequently he was diagnosed with hydrocephalus (water on the brain), and a shunt was successfully placed to reduce the pressure on his brain. The shunt prevents long-term neurological sequelae from increased fluid on the brain, which would have had a significant impact on his ability to be successful in school.
- A 4-year-old female was successfully referred to a cardiologist for a past history of evaluation with a Holter monitor (a 24-hour continuous EKG monitor). She was diagnosed with a bicuspid aortic valve and will need prophylactic antibiotic therapy whenever she has a dental appointment or an invasive procedure. If she had not been diagnosed and was not aware of the need for antibiotic therapy before some common life events, she could have developed endocarditis, which can lead to death.

In addition, the WELL Clinic has played a key role in helping school children obtain access to dental care. As noted in the quarterly report:

- A dental screening and treatment program came to the WELL Clinic this past summer. One hundred twenty-eight children were treated for dental caries over a period of five and a half days. This was the first time a dental clinic was held in the Hays school district, and it was very successful.

Regardless of the type of treatment, the Hays WELL Clinic plays a key role in promoting positive health behavior as well as the monitoring of high-risk conditions for children in Hays County.

**Hays CISD WELL Clinic Immunizations:** In 2002, the number of immunizations that were administered steadily increased across quarterly reporting periods. Although far more immunizations were administered during FY 2003 (1,515 compared to 892 in 2002), the pattern of administration tended to fluctuate from quarter to quarter. During the first quarter, 409 immunizations were given, followed by a decrease of 41.6% to 239 in the second quarter. During the third quarter, 340 immunizations were administered, and 527 patients received immunizations during the fourth quarter.

**Uninsured Clients:** The term “uninsured clients” in this report refers to SBHC clients who are without private or public health insurance coverage. Compared to the previous year, the WELL Clinic provided medical services for more uninsured clients during FY 2003. A total of 813 visits by uninsured clients including students, siblings, family members and others were recorded in 2003 as compared to 672 in 2002. There are several possible explanations for the increase in uninsured clients. The WELL Clinic has seen a double-digit growth in students seen by primary health care providers since its inception. Perhaps more students and their families are now aware of the clinic’s services. The increase in uninsured clients might also reflect the current economic downturn experienced statewide. Fewer jobs and less family income could mean that children who were once covered by their parent’s private health insurance plans have fewer health care choices. Thus, a SBHC may be a source of reliable and affordable health care services.

**WELL Clinic Financial & Sustainability Issues:** The Hays WELL Clinic has taken some steps toward sustainability by partnering with a number of medical and community organizations that provide in-kind services such as prescription drug vouchers and laboratory work. In addition, key school district administrators have promised additional support for the WELL Clinic after TDH funding ends. While the WELL Clinic has been able to provide some services because of in-kind contributions, other SBHCs that lack community partnerships or whose school districts are unable to provide financial support may find that sustainability is a tremendous challenge.

More invoices are being submitted for Medicaid reimbursement in the second year of operation. However, the processing time for billing Medicaid has been affected by a change in the billing agent. Most of the invoices are being handled on paper, and the WELL Clinic is awaiting training for electronic billing. Finally, the clinic has been accepted as a primary care facility by a managed care plan, which should serve as a source of sustainability in the future.

## **Overview of Services of All TDH-Funded SBHCs**

Two sources of data were used to assess changes in program services across all SBHCs funded by TDH during FY 2003: 1) qualitative phone interviews, and 2) quarterly program reports. Several issues were examined in the 2002 report, including program activities, barriers to implementation, sustainability, and perceived efficacy. This 2003 report primarily examines program activities in an effort to note service utilization patterns.

**Key Stakeholder Phone Survey Findings:** Key stakeholder interviews revealed a number of noteworthy findings. Previous phone interviews conducted in 2002 revealed that TDH-funded SBHCs faced a number of challenges when implementing clinic services. Some of the challenges included a lack of community awareness regarding services, misperceptions surrounding the role of SBHCs in relation to that of the school nurse, and sustainability. According to key stakeholders, school district support (both financial and administrative) and increased publicity through school newsletters and local newspapers have reduced the misperceptions associated with operating a SBHC.

While most TDH-funded SBHCs continued to provide basic preventive health services such as immunizations, physicals, and diagnosis and treatment of common illness and injury, some SBHCs expanded their services to include dental health, audiology, psychological and psychiatric services, as well as development and implementation of a mobile health service unit.

Phone interviews also revealed that funding and sustainability is still a concern for some SBHCs. However, administrators at SBHCs that were partnered with major medical research universities expressed little concern about the sustainability of their programs. In these cases, efforts were already in place to secure additional funding. In other instances, school district superintendents and other key personnel had expressed a desire to provide continued support to their district's SBHC.

**Quarterly Program Report Findings:** An analysis of the quarterly program reports demonstrated significant findings in key areas including immunizations and Medicaid visits.

**Immunizations** - Routine treatments such as immunizations and physicals were consistently administered throughout the year, thus reducing the chances of chronic or life threatening problems. During both 2002 and 2003, the number of immunizations increased across all four quarters. Overall, TDH-funded SBHCs experienced a 134.7% increase in the number of immunizations administered.

Medicaid Visits - Almost all sites reported visits by Medicaid clients during FY 2002 and FY 2003. A total of 6,200 Medicaid visits in 2002 and 9,414 visits in 2003 were reported to TDH, representing a 51.8% increase in the total number of Medicaid visits. The number of Medicaid visits increased throughout both years, but the most dramatic change in the number of Medicaid visits occurred during FY 2003. The total number of Medicaid visits reported by all TDH-funded SBHCs was 1,491 during the first quarter compared to 924 during the first quarter of FY 2002. By the end of the second quarter, 2,969 Medicaid visits were documented. The surge in Medicaid visits from the first to second quarter represented a 129.4% increase.

More SBHCs have started submitting claims to Medicaid, but as noted in the case study, delays are common in the process. The issue of billing Medicaid will be examined more closely in a future report.

### **Educational Outcomes**

One of the key goals of this analysis was to determine whether or not students who attend schools with a SBHC are more likely to attend class, score higher on academic achievement tests or less likely to drop out of school. For this particular school year, an examination of mean differences with regard to academic achievement scores was not feasible. During the 2002-2003 school year, Texas students were required to take a new basic skills exam. Given that the exam was administered for the first time during the 2002-2003 school year and considering all the issues underlying the administration of the exam, it is not realistic to compare academic achievement at this time. These comparisons will be made in the future.

Three other measures were compared: attendance, disciplinary placements, and dropout rates (middle schools and high school only). Each SBHC was matched with its comparison group on the aforementioned outcomes. The comparison group, consisting of 40 schools, was selected using TEA data. Campuses were matched in terms of ethnic and socio-economic factors (i.e. economically disadvantaged). For this analysis, there was an interest in whether or not the campuses with TDH-funded SBHCs differed significantly from the comparison schools, the rationale being that healthy students will be more likely to experience academic success.

For each SBHC and its corresponding comparison group, an analysis of variance was performed to examine mean differences in attendance and disciplinary placements. The latter refers to the number of children who are placed in alternate school settings because of conduct

problems. Although quarterly program report data indicates that there has been an increase in service utilization in a number of areas for campuses with TDH-funded SBHCs, we found no significant differences with regard to attendance, drop out rates or disciplinary placements. However, campuses with SBHCs such as Austin Middle School (Galveston ISD), Green and Hemphill Elementary Schools (Hays ISD) and Seagoville High School (Dallas ISD) have better attendance and fewer discipline referrals than their comparison campus, although these differences are not statistically significant.

### **Conclusion**

The primary objective of all SBHCs is to improve and promote wellness for school-aged children. During FY 2003, TDH-funded SBHCs provided access to health care to more than 40,000 students across 58 campuses. Demographically, these centers provided medical care to students who were economically disadvantaged, undocumented, lived in rural areas, or were parents themselves. Overall, the majority of students served were middle school children. The siblings of children enrolled at schools served by SBHCs and other community members have also benefited from SBHCs in communities that have chosen to extend the health care services beyond the target population of students. Interviews with stakeholders also indicated that TDH-funded SBHCs aid medically underserved populations.

Overall, TDH-funded SBHCs witnessed an increase in the total number of immunizations administered and the number of Medicaid visits. The increase in service utilization may be attributed to two factors: 1) greater community awareness of SBHCs and their purpose; and 2) the recent statewide economic downturn could mean that more students are without private insurance and must rely on other forms of medical service.

An examination of attendance, disciplinary placements and dropout rates yielded no significant differences between TDH SBHCs and their comparison schools. However, some campuses with TDH-funded SBHCs reported higher attendance rates and fewer disciplinary placements than their comparison school group.

Factors such as experience, school district support, and community partnerships were noted by key stakeholders as the primary reasons for overcoming barriers to program implementation.

In FY 2004, TDH will continue to document the progress of TDH-funded SBHCs, looking both at their successes and the challenges they face, utilizing the tools referenced in this report for measuring the health and educational impact of SBHCs on Texas students.

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